OIPE

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        RAW SEQUENCE LISTING                    DATE: 11/27/2001
        PATENT APPLICATION:  US/09/989,481      TIME: 14:18:41

        Input Set : A:\Chau, Raymond 12592-4 Sequence Listing in PatentIn 3.0.txt
        Output Set: N:\CRF3\11212001\I989481.raw
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      3 <110> APPLICANT: Chau, Raymond M.W.
      5 <120> TITLE OF INVENTION: Isolation and Use of Motoneurontropic Factors
      7 <130> FILE REFERENCE: 12592-4
C-->  9 <140> CURRENT APPLICATION NUMBER: US/09/989,481
     10 <141> CURRENT FILING DATE: 2001-11-20
     12 <150> PRIOR APPLICATION NUMBER: US 09/633,447
     13 <151> PRIOR FILING DATE: 2000-08-07
     15 <150> PRIOR APPLICATION NUMBER: US 08/9928862
     16 <151> PRIOR FILING DATE: 1997-09-12
     18 <150> PRIOR APPLICATION NUMBER: US 08/751225
     19 <151> PRIOR FILING DATE: 1996-11-15
     21 <150> PRIOR APPLICATION NUMBER: US 60/026792
     22 <151> PRIOR FILING DATE: 1996-09-27
     24 <160> NUMBER OF SEQ ID NOS: 5
     26 <170> SOFTWARE: PatentIn version 3.0
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     38 gacacctttg gtgacattaa ttaccaagaa tttgctaaaa gactctgggg tgacatctac     180
     40 ttcaacccta agacgcgaaa gttcaccaaa aaggccccaa ctagcagctc ccagagaagt     240
     42 ttcgtggagt ttatcttgga gcctctttat aagatcctcg cccaggttgt aggtgacgtg     300
     44 gacaccagcc tcccacggac cctagacgag cttggcatcc acctgacgaa ggaggagctg     360
     46 aagctgaaca tccgcccctt gctcaggctg gtctgcaaaa agttctttgg cgagttcaca     420
     48 ggctttgtgg acatgtgtgt gcagcatatc ccttctccaa aggtgggcgc caagcccaag     480
     50 attgagcaca cctacaccgg tggtgtggac tccgacctcg gcgaagctat gagtgactgt     540
     52 gaccctgatg gccccctgat gtgccacact actaagatgt tcagcacaca tgatggagtc     600
     54 cagtttcacc cctttggccg ggtgctgagt ggcaccattc atgctgggca gcctgtgaag     660
     56 gttctggggg agaactacac cctggaggat gaggaagact ccccaatttg ccccgtgggc     720
     58 cgcctttgga tctctgtggc cagctaccac atcgaggtga accgtgttcc tgctggcaac     780
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     62 cgaggcaatg aggaggctca gattttccga cccttgaagt tcaataccac atctgttatc     900
     64 aagattgctg tggagccagt caacccctca gagctgccca agatgcttga tggcctgcgc     960
     66 aaggtcaaca agagctatcc atccctcacc accaaggtgg aggagtctgg cgagcatgtg    1020
     68 atcctgggca ctggggagct ctacctggac tgtgtgatgc atgatttgcg gaagatgtac    1080
     70 tcagagatag acatcaaggt ggctgaccca gttgtcacgt tttgtgagac ggtcgtggaa    1140
     72 acatcctccc tcaagtgctt tgctgaaacg cctaataaga agaacaagat caccatgatt    1200
     74 gctgagcctc ttgagaaggg cctggcagag gacatagaga atgaggtggt ccagattacg    1260
     76 tggaacagga agaagctggg agagttcttc cagaccaagt acgattggga tctgctggct    1320
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     82 ggt                                                                   1443
     85 <210> SEQ ID NO: 2
     86 <211> LENGTH: 927
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Output Set: **N:\CRF3\11212001\I989481.raw**

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 93 gctcgatgtc ttgcagaagg acatgatggt cctacacagt aaggaatgga ttacctacaa     120
 95 tattaatagc agcctcccat acacactttt gacacccttc cctaaaggat taatatgctc     180
 97 caaccttcct gtccccacag ttcagtggct ctccctaccc tcaccatgat cggatgaaaa     240
 99 aaaataaggt ttcacagctt aagagtgaaa ttctggaatc caactacaag ctcataactg     300
101 tagcatggaa cctggtagta gcataataaa taaattttta gtaagaggct taagaaattt     360
103 tagcaaaaaa agcactccct ttcttcctcc ctacatatct catatgtttt tcaacacaaa     420
105 aaattctgtg attttagaga aacttcttac agtactttta agttcaaaac cagatgctca     480
107 ttacagttct tttaaacacc aaactagtca tctcaaaaat atggctaact ctctggacta     540
109 aattccatag gaaaaattat taatttcaaa atgcctaatt tttgatcaat gctgaagagc     600
111 caagcaatca tgtcctgctt ctcactcagg gcagagttct caggtcagaa gctccggagt     660
113 ctgtcagaga ttaaaatatc atctcaacaa ttcacaagct acttctaagt gttaccctaa     720
115 attagtcact aatcgtttct cccccaactc tatttcacaa attaaagttt acagaattga     780
117 caaaaaccaa accaatgaaa caacccaggc tatttgcagg ggggggaaa gagataccc      840
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134 Gly Asn Val Cys Phe Ser Ser Ser Gln Tyr Ser Ile Cys Phe Thr Leu
135             20                  25                  30
137 Gly Ser Phe Ala Lys Ile Tyr Ala Asp Thr Phe Gly Asp Ile Asn Tyr
138         35                  40                  45
140 Gln Glu Phe Ala Lys Arg Leu Trp Gly Asp Ile Tyr Phe Asn Pro Lys
141     50                  55                  60
143 Thr Arg Lys Phe Thr Lys Lys Ala Pro Thr Ser Ser Ser Gln Arg Ser
144 65                  70                  75                  80
146 Phe Val Glu Phe Ile Leu Glu Pro Leu Tyr Lys Ile Leu Ala Gln Val
147             85                  90                  95
149 Val Gly Asp Val Asp Thr Ser Leu Pro Arg Thr Leu Asp Glu Leu Gly
150             100                 105                 110
152 Ile His Leu Thr Lys Glu Glu Leu Lys Leu Asn Ile Arg Pro Leu Leu
153         115                 120                 125
155 Arg Leu Val Cys Lys Lys Phe Phe Gly Glu Phe Thr Gly Phe Val Asp
156     130                 135                 140
158 Met Cys Val Gln His Ile Pro Ser Pro Lys Val Gly Ala Lys Pro Lys
159 145                 150                 155                 160
161 Ile Glu His Thr Tyr Thr Gly Gly Val Asp Ser Asp Leu Gly Glu Ala
162             165                 170                 175
164 Met Ser Asp Cys Asp Pro Asp Gly Pro Leu Met Cys His Thr Thr Lys
165             180                 185                 190
167 Met Phe Ser Thr His Asp Gly Val Gln Phe His Pro Phe Gly Arg Val
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168            195                  200                  205
170 Leu Ser Gly Thr Ile His Ala Gly Gln Pro Val Lys Val Leu Gly Glu
171     210                  215                  220
173 Asn Tyr Thr Leu Glu Asp Glu Glu Asp Ser Gln Ile Cys Thr Val Gly
174 225                  230                  235                  240
176 Arg Leu Trp Ile Ser Val Ala Arg Tyr His Ile Glu Val Asn Arg Val
177                  245                  250                  255
179 Pro Ala Gly Asn Trp Val Leu Ile Glu Gly Val Asp Gln Pro Ile Val
180                  260                  265                  270
182 Lys Thr Ala Thr Ile Thr Glu Pro Arg Gly Asn Glu Glu Ala Gln Ile
183     275                  280                  285
185 Phe Arg Pro Leu Lys Phe Asn Thr Thr Ser Val Ile Lys Ile Ala Val
186     290                  295                  300
188 Glu Pro Val Asn Pro Ser Glu Leu Pro Lys Met Leu Asp Gly Leu Arg
189 305                  310                  315                  320
191 Lys Val Asn Lys Ser Tyr Pro Ser Leu Thr Thr Lys Val Glu Glu Ser
192                  325                  330                  335
194 Gly Glu His Val Ile Leu Gly Thr Gly Glu Leu Tyr Leu Asp Cys Val
195                  340                  345                  350
197 Met His Asp Leu Arg Lys Met Tyr Ser Glu Ile Asp Ile Lys Val Ala
198     355                  360                  365
200 Asp Pro Val Val Thr Phe Cys Glu Thr Val Val Glu Thr Ser Ser Leu
201     370                  375                  380
203 Lys Cys Phe Ala Glu Thr Pro Asn Lys Lys Asn Lys Ile Thr Met Ile
204 385                  390                  395                  400
206 Ala Glu Pro Leu Glu Lys Gly Leu Ala Glu Asp Ile Glu Asn Glu Val
207                  405                  410                  415
209 Val Gln Ile Thr Trp Asn Arg Lys Lys Leu Gly Glu Phe Phe Gln Thr
210                  420                  425                  430
212 Lys Tyr Asp Trp Asp Leu Leu Ala Ala Arg Ser Ile Trp Ala Phe Gly
213     435                  440                  445
215 Pro Asp Ala Thr Gly Pro Asn Ile Leu Val Asp Asp Thr Leu Pro Ser
216     450                  455                  460
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219 465                  470                  475                  480
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224 <210> SEQ ID NO: 4
225 <211> LENGTH: 33
226 <212> TYPE: PRT
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229 <400> SEQUENCE: 4
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232 1             5                  10                  15
234 Phe Ser Arg Tyr Ala Arg Cys Leu Ala Glu Gly His Asp Gly Pro Thr
235                  20                  25                  30
237 Gln
240 <210> SEQ ID NO: 5
241 <211> LENGTH: 99
242 <212> TYPE: DNA
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Output Set: N:\CRF3\11212001\I989481.raw

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248 gctcgatgtc ttgcagaagg acatgatggt cctacacag                             99
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VERIFICATION SUMMARY   DATE: 11/27/2001
PATENT APPLICATION: US/09/989,481   TIME: 14:18:42

Input Set : **A:\Chau, Raymond 12592-4 Sequence Listing in PatentIn 3.0.txt**
Output Set: **N:\CRF3\11212001\I989481.raw**

L:9 M:270 C: Current Application Number differs, Replaced Current Application Number